

**FORM PTO-1449**  
**U.S. DEPARTMENT OF COMMERCE**  
**PATENT AND TRADEMARK OFFICE**

JCG72 U.S. PTO  
 09/811904  
 03/19/01

ATTY DOCKET NO. 11460-109  
 Sheet 1 of 1

Applicants: Richard P. Torti, et al.

Serial Number: N/A

Filed: Herewith

For: CLUSTER SIZE MEASUREMENT INSTRUMENT AND METHOD FOR CLUSTER  
 ION BEAM DIAGNOSTIC

Examiner: N/A

Group Art Unit: N/A

**U.S. PATENT DOCUMENTS**

EXAMINER				SUB		FILING	
INI- ITEM DOCUMENT				CLASS	CLASS	DATE IF	APPROP.
TIAL NO.	NUMBER	DATE	NAME				
W	1. 5,814,194	09/29/98	Deguchi et al.	204	192.1		
W	2. 5,459,326	10/17/95	Yamada	250	398		
W	3. 4,737,637	04/12/98	Knauer	250	281		
W	4. 5,185,287	02/09/93	Aoyagi et al.	437	105		

**FOREIGN PATENT DOCUMENTS**

EXAMINER				SUB		TRANSLATION	
INI- ITEM DOCUMENT				CLASS	CLASS	YES	NO
TIAL NO.	NUMBER	DATE	NAME				
W	03245523 JP	11/01/91	Aoyanagi Toshitaka			+	
W	62112777 JP	05/23/87	Aoki Masahiko			+	

**OTHER DOCUMENTS**  
**(Including Author, Title, Date, Pertinent Pages, etc.)**

1. W. Henkes, et al., "Development of gas cluster ion accelerators", Rev. Sci. instrum., 48(6), (1997) p.675
2. N. Kofuji, et al., "Development of gas cluster source and its characteristics", Proc. 14<sup>th</sup> Symp. On Ion Sources and Ion-Assisted Technology, Tokyo (1991) p.15
3. Yamada & Matsuo, "Cluster ion beam processing", Matl. Science in Semiconductor Processing I, (1998) pp.27-41
4. N. Toyoda, "Nano-Processing with Gas Cluster Ion Beams", sections 3.1 and 3.2, doctoral thesis, Kyoto Univ., Kyoto, JP, 1999

**EXAMINER**

**DATE CONSIDERED**

*21A R-HASHI*

*7/9/03*



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ATTORNEY DOCKET NO.: 11460-109

APPLICATION SERIAL NO.: 09/811,904

GROUP ART UNIT: 2881

APPLICANT: Richard P. Torti, et al.

EXAMINER: N/A

FILING DATE: March 19, 2001

CONFIRMATION NO.: 7642

**U.S. PATENT DOCKETS**

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS/SUB-CLASS	FILING DATE IF APPROPRIATE
WE	5,382,793	01/17/95	Weinberger, et al.	250/288	03/06/92
WE	5,659,170	08/19/97	Da Silveira, et al.	250/287	12/16/94

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS/SUB-CLASS	TRANSLATION YES NO

**OTHER DOCUMENTS**  
**(Including Author, Title, Date, Pertinent Pages, etc.)**

\* If any such item is considered sufficiently relevant by the Examiner to the present invention, its possible "prior art" status against the present invention should be considered individually allowing for the prospect of Applicants' swearing back or other priority determination.

EXAMINERDATE CONSIDEREDZia R. Hashmi7/9/03